

Daisuke SUZUKI et al., Application No. 10/586,797
Page 4

Dkt. 2271/76611

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An image processing method for processing image data to be output to an image forming apparatus that is capable of making a two-way recording to form an image on a recording medium by recording in a forward path and a return path of a scan by an ink-jet recording head, comprising:

a halftone process that is based on an inclined line-group keytone and maintains keytone continuity,

wherein the halftone process includes a dither process in which the inclined line-group keytone appears at a stage where the recording in the forward path is made,

wherein the dither process uses a dither mask that is formed by first patterns and second patterns, the first patterns have a plurality of different threshold values by combinations of dots recognizable as inclined line-group tone patterns, and the second patterns interpolate between the first patterns to obtain linear gradation values, and

wherein first threshold values of the dither mask at dot positions recorded during the recording in the forward path are small relative to second threshold values of the dither mask at dot positions recorded during the recording in the return path in a section between the first and second threshold values, the first threshold values emphasize the inclined line-group keytone pattern by a combination of specific dots, and the second threshold values are higher than the first threshold values and emphasize the inclined line-group keytone pattern by a combination of specific dots.

Daisuke SUZUKI et al., Application No. 10/586,797
Page 5

Dkt. 2271/76611

Claims 2 and 3 (canceled).

4. (currently amended) The image processing method as claimed in claim ~~[[3]]~~ 1, wherein at least 70% of the first threshold values at the dot positions ~~recorded~~ during the recording in the forward path are smaller than the second threshold values at the dot positions ~~recorded~~ during the recording in the return path.

5. (currently amended) The image processing method as claimed in claim 1, wherein the ~~dither-process-uses-a~~ dither mask ~~[[that]]~~ used in the dither process part copes with a two-way interlace recording or a multi-path recording of the image forming apparatus.

6. (previously presented) A printer driver for causing a computer to execute a halftone process according to the image processing method recited in claim 1, to output the image data to the image forming apparatus.

7. (original) An image processing apparatus provided with the printer driver recited in claim 6, to carry out a halftone process with respect to the data to be output to the image forming apparatus.

8. (currently amended) An image forming apparatus capable of making a two-way recording to form an image on a recording medium by recording in a forward path and a return path of a scan by an ink-jet recording head, comprising:

Daisuke SUZUKI et al., Application No. 10/586,797
Page 6

Dkt. 2271/76611

a halftone process part configured to carry out a halftone process that is based on an inclined line-group keytone and maintains keytone continuity,

wherein the halftone process part includes a dither process part configured to carry out a dither process in which the inclined line-group keytone appears at a stage where the recording in the forward path is made,

wherein the dither process uses a dither mask that is formed by first patterns and second patterns, the first patterns have a plurality of different threshold values by combinations of dots recognizable as inclined line-group tone patterns, and the second patterns interpolate between the first patterns to obtain linear gradation values, and

wherein first threshold values of the dither mask at dot positions recorded during the recording in the forward path are small relative to second threshold values at dot positions recorded during the recording in the return path in a section between the first and second threshold values, the first threshold values emphasize the inclined line-group keytone pattern by a combination of specific dots, and the second threshold values are higher than the first threshold values and emphasize the inclined line-group keytone pattern by a combination of specific dots.

Claims 9 and 10 (canceled).

11. (currently amended) The image forming apparatus as claimed in claim [[10]] 8, wherein at least 70% of the first threshold values at the dot positions ~~recorded~~ during the recording in the forward path are smaller than the second threshold values at the dot positions ~~recorded~~ during the recording in the return path.

Daisuke SUZUKI et al., Application No. 10/586,797
Page 7

Dkt. 2271/76611

12. (currently amended) The image forming apparatus as claimed in claim 8, wherein the dither mask used by the dither process part ~~uses a dither mask that~~ copes with a two-way interlace recording or a multi-path recording of the image forming apparatus.

13. (currently amended) An image forming system comprising:

an image processing apparatus recited in claim 7; and

an image forming apparatus ~~recited in any of claims 8 to 12~~ configured to make a two-way recording to form an image on a recording medium by recording in a forward path and a return path of a scan by an ink-jet recording head, the image forming apparatus comprising a halftone process part configured to carry out a halftone process that is based on an inclined line-group keytone and maintains keytone continuity,

wherein the halftone process part includes a dither process part configured to carry out a dither process in which the inclined line-group keytone appears at a stage where the recording in the forward path is made,

wherein the dither process uses a dither mask that is formed by first patterns and second patterns, the first patterns have a plurality of different threshold values by combinations of dots recognizable as inclined line-group tone patterns, and the second patterns interpolate between the first patterns to obtain linear gradation values, and

wherein first threshold values of the dither mask at dot positions recorded during the recording in the forward path are small relative to second threshold values at dot positions recorded during the recording in the return path in a section between the first and second threshold values, the first threshold values emphasize the inclined line-group keytone pattern by a combination of specific dots, and the second threshold values are higher than the first threshold

Daisuke SUZUKI et al., Application No. 10/586,797
Page 8

Dkt. 2271/76611

values and emphasize the inclined line-group keytone pattern by a combination of specific dots.

14. (new) The image processing method of claim 1 wherein the inclined line-group keytone comprises dots of different dot sizes.

15. (new) The image processing method of claim 1, wherein the image processing method reduces disorder of the inclined line-group keytone, caused by two-way impact error.